

REMARKS

Favorable reconsideration is respectfully requested in light of the following remarks, wherein Claim 1 is amended and Claim 2 is canceled. Currently, Claims 1 and 3-6 are pending in the present application.

Claims 1-6 stand rejected under 35 U.S.C. §103(a) as being unpatentable over U.S. Patent 787,960 to *Temple* in view of U.S. Patent 4,688,468 to *Axinti et al.*

Independent Claim 1 is amended to recite that the means for feeding pressurized pressure liquid to the working pressure chamber are arranged to feed the pressure liquid such that the pressure in the working pressure chamber remains substantially constant during operation of the percussion device. As such, as show for example in Fig. 1, when pushing piston 4 toward chamber 3, the pressure liquid is allowed to flow out from the chamber so that the pressure liquid is not compressed significantly to a higher pressure. None of the art of record discloses these patentable features.

In contrast, *Temple* fails to disclose any means for feeding pressurized pressure liquid to the working pressure chamber such that the pressure in the working pressure chamber remains constant. First, *Temple* fails to disclose the use of pressurized liquid, and instead uses air. Moreover, the upper chamber is filled with pressurized air only in the beginning of the operation of the equipment, and there is no pressure compensator or any other means to keep the pressure substantially the same. In *Temple*, the upper chamber is closed and pushing the piston towards the chamber would increase the pressure of the fluid enormously. There is no escape for the pressurized fluid from the upper chamber in *Temple* during its operation.

The Examiner's reliance on page 1, lines 50-58 of *Temple* for allegedly showing that pressure is substantially the same during the operation is misplaced. However, this section reads in part that "instead of using compressed air and exhausting it, a closed circuit with air under pressure is maintained." The first part discloses that the prior art used compressed air which was supplied to the machine and exhausted out of the machine. The second part discloses that *Temple* uses a closed circuit where there is pressurized air for creating the reciprocating operation. These sections belie any allegation by the Examiner that pressure remains substantially constant during operation. In contrast, the air is clearly under fluctuating pressure.

As such, one having ordinary skill in the art would understand from the explanation and the figure that the pressure will change when the piston is pushed towards the upper ad closed chamber and that the pressure will decrease when piston moves downwards from the upper chamber fixed.

Quite simply according to normal physical laws the following equalizations applies:

$$V_1 \times P_1 = V_2 \times P_2.$$

When starting from the situation of the Figure of *Temple*, the volume of the upper chamber is V_1 and the pressure of the system P_1 . When piston D is pushed by the pressure of the air upwards, the volume will decrease to a value of V_2 . Simultaneously the pressure in the chamber, since in the chamber value C is closed during the operation, increases. If volume V_2 is 1:2 of volume V_1 , pressure P_2 is 2:1 compared to pressure P_1 . Quite simply, there is no constant or even substantially constant pressure in *Temple* during the operation.

At the end of page 4, the Examiner claims that *Temple* shows wherein the pressure fluid of equal pressure is fed to both the working and the charging pressure via opening of valve c.

This really happens once at the starting of the machine. However, as written on page 1, lines 80-89 of *Temple*, valve c is closed during the operation. On lines 88-89, it has been clearly stated that

"the pulsations of air pass into the tool-cylinder below tool-piston only, moving it upwards and further compressing the air above the same."

Accordingly, Temple fails to disclose the feature that the means for feeding pressurized pressure liquid to the working pressure chamber are arranged to feed the pressure liquid such that the pressure in the working pressure chamber remains substantially constant during operation of the percussion device, as now defined in independent Claim 1.

For at least the foregoing reasons, it is submitted that the apparatus of Claim 1, and the claims depending therefrom, are patentably distinguishable over the applied document. Accordingly, withdrawal of the rejections of record and allowance of this application are earnestly solicited.

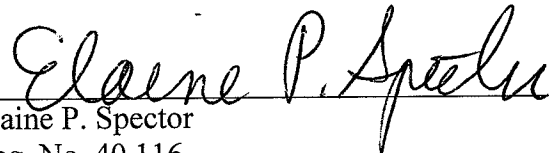
Should any questions arise in connection with this application, or should the Examiner believe a telephone conference would be helpful in resolving any remaining issues pertaining to this application, it is respectfully requested that the undersigned be contacted at the number indicated below.

EXCEPT for issue fees payable under 37 C.F.R. § 1.18, the Commissioner is hereby authorized by this paper to charge any additional fees during the entire pendency of this application including fees due under 37 C.F.R. §§ 1.16 and 1.17 which may be required, including any required extension of time fees, or credit any overpayment to Deposit Account 50-0573. This paragraph is intended to be a CONSTRUCTIVE PETITION FOR EXTENSION OF TIME in accordance with 37 C.F.R. § 1.136(a)(3).

Respectfully Submitted,

Date: July 19, 2010
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